

IN THE CLAIMS:

The pending claims are listed below and have been amended or cancelled, without prejudice, where noted.

1. (Currently Amended) A process for the polymerization ~~or copolymerization~~ of propylene monomer, comprising:

providing a Ziegler-Natta catalyst, ~~and in any order:~~

contacting the catalyst with an organoaluminum compound;

contacting the catalyst with at least one electron donor comprising a di-sec-butylaldioxysilane ~~simultaneously with or subsequent to contacting the catalyst with the organoaluminum compound~~, where the di-sec-butylaldioxysilane has the formula $(^i\text{Bu})_2\text{Si}(\text{OR}'')_2$, where R'' is independently a straight or branched alkyl group of 1-5 carbon atoms;

introducing the catalyst into a polymerization reaction zone containing the organoaluminum compound, the electron donor and propylene monomer; and

removing polypropylene homopolymer or copolymer from the polymerization reaction zone.

2. (Original) The process of claim 1 where the Ziegler-Natta catalyst comprises a transition metal compound of the formula MR_x where M is selected from the group consisting of titanium, chromium, and vanadium, R is selected from the group consisting of halogen or a hydrocarboxyl, and x is an integer up to and including the maximum valence of M as dictated by its position in the Periodic Table.

3. (Original) The process of claim 1 where the polypropylene homopolymer or copolymer removed from the polymerization reaction zone has xylene solubles ranging from about 0.5 to about 6 wt%.

4. (Original) The process of claim 1 where the polypropylene homopolymer or copolymer removed from the polymerization reaction zone has a polydispersity ranging from about 7 to about 11.

5. (Original) The process of claim 1 where the organoaluminum compound is an aluminum trialkyl co-catalyst of the formula AlR_3 , where R is an alkyl group having 1 to 8 carbon atoms, with each R being the same or different.
6. (Original) The process of claim 5 where the organoaluminum co-catalyst is triethyl aluminum (TEAL).
7. (Original) The process of claim 1 where the Al/Si molar ratio (organoaluminum compound to silane donor) ranges from about 0.5 to about 500.
8. (Original) The process of claim 1 where the electron donor is present in an amount of from about 0.5 to about 500 ppm by weight of propylene monomer.
9. (Original) The process of claim 1 where the polymerization reaction zone additionally contains an olefin monomer other than propylene monomer.
10. (Original) The process of claim 1 further comprising contacting the catalyst with at least one molecular weight modifier.
11. (Original) The process of claim 1 where the electron donor is selected from the group consisting of di-sec-butyldimethoxysilane (DSBDMS), di-sec-butyldiethoxysilane (DSBDES), di-sec-butyldimethoxyethoxysilane, and mixtures thereof.
12. (Currently Amended) A process for the polymerization ~~or copolymerization~~ of propylene monomer, comprising:
providing a Ziegler-Natta catalyst, where the Ziegler-Natta catalyst comprises a transition metal compound of the formula MR_x where M is selected from the group consisting of titanium, chromium, and vanadium, R is selected from the group consisting of a halogen and a hydrocarboxyl, and x is an integer up to and including the maximum valence of M as dictated by its position in the Periodic Table, ~~and in any order;~~

contacting the catalyst with an organoaluminum compound;

contacting the catalyst with at least one electron donor selected from the group consisting of di-sec-butyldimethoxysilane (DSBDMS), di-sec-butyldiethoxysilane (DSBDES), di-sec-butyldimethoxyethoxysilane, and mixtures thereof, ~~simultaneously with or subsequent to contacting the catalyst with an~~ the organoaluminum compound;

contacting the catalyst with at least one molecular weight modifier;

introducing the catalyst into a polymerization reaction zone containing the organoaluminum compound, the electron donor, the molecular weight modifier, and propylene monomer; and

removing polypropylene homopolymer or copolymer from the polymerization reaction zone where the Al/Si molar ratio (organoaluminum compound to silane donor) ranges from about 0.5 to about 500.

13. (Original) The process of claim 12 where the polypropylene homopolymer or copolymer removed from the polymerization reaction zone has xylene solubles ranging from about 0.5 to about 6 wt%.

14. (Original) The process of claim 12 where the polypropylene homopolymer or copolymer removed from the polymerization reaction zone has a polydispersity ranging from about 7 to about 11.

15. (Original) The process of claim 12 where the organoaluminum compound is an aluminum trialkyl co-catalyst of the formula AlR_3 , where R is an alkyl group having 1 to 8 carbon atoms, with each R being the same or different.

16. (Original) The process of claim 15 where the organoaluminum co-catalyst is triethyl aluminum (TEAL).

17. (Original) The process of claim 12 where the electron donor is present in an amount of from about 0.5 to about 500 ppm by weight of propylene monomer.

18-30. (Cancelled)